



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5810-11

Job Sheet 207549



POSITIVE
RECALL

Part No: D5810-11

Job Qty: 2 pcs

Part Name: Cutout Bottom



POSITIVE RECALL

EFFECTIVE 3/12/20 AUTH Mla

RELEASED _____ DATE _____

Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/27/20

Job Tracking No:

Due Date: 4/27/20

Created By: Jennifer Renwick

Type: Stock

Description:

Note: URF 20-522 DWG D5810 Rev A IPP Rev. A 2020.01.30 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Large Fab - Welded Assy-1	2 pcs	4/27/20	4/27/20	0.00	0.20	Large Fab - 1		
							Large Fab - 10		
							Large Fab - 2		
							Large Fab - 3		
							Large Fab - 4		
							Large Fab - 5		
							Large Fab - 6		
							Large Fab - 7		
							Large Fab - 8		
							Large Fab - 9		
							Large Fab - 11 (Various)		
							Large Fab - 12		
120	QC 5	2 pcs	4/27/20	4/27/20	0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 46		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		
							QC 5 - 61		
							QC 5 - 81		



Container No: S263976



Part: D5810-11

Job No: 207549

Serial No/Batch: S263976

Revision: A

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 03/17/20

DATE
40
8-89

Flex 3/12/20 8:05 AM Dart.lajeunesse.marie

130 Packaging 3-1 - Stock - B4B 2 pcs

4/27/20

0.00 0.00

Packaging 3 - 1 - B4B

Packaging 3 - 2 - B4B

Packaging 3 - 3 - B4B

Packaging 3 - 4 - B4B

Packaging 3 - 5 - B4B

Packaging 3 - 6 - B4B

Packaging 3 - 7 - B4B

Packaging 3 - 8 - B4B

Packaging 3 - 9 - B4B

Packaging 3 - 10 - B4B

Packaging 3 - 11 - B4B

Packaging 3 - 12 - B4B

Packaging 3 - 13 - B4B

Packaging 3 - 14 - B4B

Packaging 3 - 15 - B4B

Packaging 3 - 16 - B4B

Packaging 3 - 17 - B4B

Packaging 3 - 18 - B4B

Packaging 3 - 19 - B4B

Packaging 3 - 20 - B4B

Packaging 3 - 21 - B4B

Packaging 3 - 22 - B4B

Packaging 3 - 23 - B4B

Packaging 3 - 24 - B4B

Packaging 3 - 25 - B4B

Packaging 3 - 26 - B4B

Packaging 3 - 27 - B4B

Packaging 3 - 28 - B4B

Packaging 3 - 29 - B4B

Packaging 3 - 30 - B4B

Packaging 3 - 31 - B4B

Packaging 3 - 32 - B4B

Packaging 3 - 33 - B4B

Packaging 3 - 34 - B4B

Packaging 3 - 35 - B4B

Packaging 3 - 36 - B4B

Packaging 3 - 37 - B4B

140 QC 21 - SA

2 pcs

4/27/20

0.00 0.00

QC 21 - SA - 21

QC 21 - SA - 70

QC 21 - SA - 53

Part Op 110 - Fabricate per Drwg - 1-Cut as per DWG, 2-Deburr.

Descriptions: 120 - QC5- Inspect part completeness to step on W/C

130 - Identify as per dwg & Stock Location: *W4004*

140 - QC21- Final Inspection - Work Order Release

MAR 17 2020

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M4130NTS0.750W.035	4130 Square Tube 0.750 X 0.035W	3.7800 ft (1.89 ea)	110-Large Fab - Welded Assy-1	<i>5260577</i>

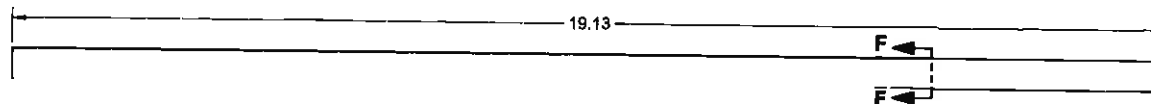
Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Large Fab - Welded Assy-1	M4130NTS0.750W.035	4	324	0

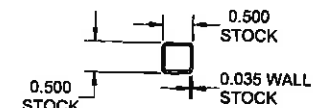
Part Specifications

Specifications could not be found.

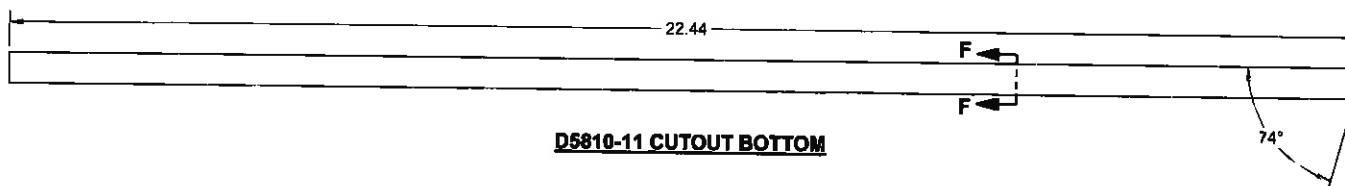
8 7 6 5 4 3 2 1



D5810-9 SPINE



SECTION F-F



D5810-11 CUTOUT BOTTOM

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 207549 M-L-5

2003-12

UNDER REVIEW

URF 2020-522 20.02.14 (NO)

NOTES:

- 1) MATERIAL: AISI 4130N STEEL SQUARE TUBING, 1/2 X 0.035 WALL
PER MIL-T-6736 OR AMS 6371/6360/6361/6362/6373/6374
REF DART SPEC M4130N-TS0.500W.035
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: -8: 0.34 lbs
-11: 0.39 lbs

RELEASED

2020 FEB 18 NO

APPROVED

DESIGN	ZF
DRAWN	ZF
CHECKED	KPT
MFG. APPR.	DD
APPROVED	NO
DE APPR.	CP
DATE	20.01.20

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D5810

TITLE
XL BASKET BODY

REV. A
SHEET 5 OF 7
SCALE
NTS

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8 7 6 5 4 3 2 1

2/19/2020

PURCHASE ORDER



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB045883



Supplier: FAC001-VU
Factory Steel
14020 Oakland Ave.
Detroit, MI 48203 USA
Phone: 313 883 8300
Fax: 313 883 4883

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB045883

PO Date: 2/18/20

Due Date: 2/28/20

Purchase Order

Revision:

Revision Date:

Issued By:

Lavoie, Chantal
Phone: 613-632-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

Via: Ground

Print Terms: Net 30

Freight Terms:

Special Comments:

FEB 19 2020

Items														
Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price	
1		M4130NTS0.500W.035			4130 Square Tube .500 X .500 X .035W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6380/6361/6362 6373/6374 receive ft	Firmed		2/28/20	600 ft	0 ft 611 ft 603	600 ft	\$6.49/ft DAS MAR 04 2020	\$3,894.60	
Grand Total:													\$3,894.60	

Order Notes

- Procurement Quality Clauses
- A005 right of entry
 - A012 chemical and physical test report
 - A016 personnel qualification
 - A017 raw material identification (as applicable). No Raw Metals from China or Soviet Bloc Countries. (DFARS)
 - A026 certification of material conformance
 - A041 quality management system
 - A042 dart notification by supplier
 - A043 retention of quality documents
 - A048 counterfeit parts avoidance, detection, mitigation and disposition program.
 - A049 supplier awareness.

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 2/19/20 2:52 PM Dart.Lavoie, Chantal

PACKING LIST

No. 67811

PG 1 OF 1

FACTORY STEEL & METAL SUPPLY
14020 OAKLAND AVENUE
DETROIT, MI 48203

(313)883-6300 PHONE
(313)883-4883 FAX

SOLD TO
DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

CUSTOMER PO
POH8045883
CUSTOMER JOB

SALES ORDER
60752

ORDER DATE
02/19/2020

SHIP TO
DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

BUYER
CHANTEL LAVOIE
Tel (613) 632-3336
Fax (613) 632-4443

SALES REP
MICK HALON

SHIP INST
CALL WHEN READY

PRO#

TERMS
NET 30 DAYS

SHIP DATE
02/21/2020

SHIP VIA
****TRUCK****

RESALE #
59-2958719

CARRIER
TRUCK

BLEND Y/N
N

FOB
DETROIT

LINE	QUANTITY	DESCRIPTION	WIDTH	LENGTH	WEIGHT
1	611.667 FT	<p>PACK IN CARDBOARD TUBE</p> <p>4130N CD SHLSS SQ TUBE 1/2" X .035W MILY-6736</p> <p>Tag N111 Ref # Heat 25537</p> <p>154506 023914</p> <p>NTRS (CIRCLE) FAX SHIPMENT INVOICE ALL</p> <p>DATE: INITIAL:</p>	21' 24" RL	21' 24" RL	135.361
<p>TOTAL WT 135 LBS</p>			<p>RECEIVED BY: SIGNATURE</p>		
<p>RECEIVED BY: PRINTED NAME</p>			<p>DATE RECEIVED</p>		

61151

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4130 NT 50.520 W.035 PO / BATCH NO.: P048045803
 DATE: MAR 04 2020 5260577

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 611 FT
 QUANTITY INSPECTED: 611 FT
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .500 X .520 W.035
 THICKNESS RECEIVED: .500 X .520 W.035
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	MIL-T-6736
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	HIT 23537
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORRECT MPN ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 16 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>MAR 04 2020</u>	<u>DAS</u>	SIGNED OFF BY: <u>—</u>	
DATE: <u>—</u>	<u>12</u>	DATE: <u>—</u>	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

LIME1

M4130NTS0.500W.035

10413045883



DESIGN DH	DRAWN BY DH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. M4130N-TS	REV. A SHEET 1 OF 1
DATE 05.02.09		TITLE 4130N SQUARE TUBING	SCALE NTS
A	05.02.09	NEW ISSUE	

PURCHASE MATERIAL:

AISI 4130N STEEL SQUARE TUBING PER ONE OF
THE FOLLOWING SPEC'S MIL-T-6736, AMS 6371,
6360, 6361, 6362, 6373 OR 6374

DAS

PART NUMBER: M4130N-TS | A.AAA | W | .ITT |

WHERE A.AAA = WIDTH IN INCHES
ITT = WALL THICKNESS IN INCHES

EXAMPLE: 0.50" X 0.035" WALL = M4130N-TS0.500W.035

05.03.05

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SALES ORDER - LINE / RLS
179907 - 1 / 0

Phone: 919-273-1316 Fax: 919-273-7749

RESOURCE ACQUISITION SUBSTITUTIONS

WORK ORDER 023914 PCS/HEAT
HEAT NUMBER 25537 D/S
MELT SOURCE Trinken Steel - Melt/Mfg. USA

SHIP TO

Factory Steel & Metal Supply Co
14020 Oakland Avenue
Detroit, MI 48203
USA

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streater in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Stearns in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

Marie Durosoy
CLARENCE BOWEN



300 East 21st Street, Streator, Illinois 61884
Phone: (618) 673-1915 Fax: (618) 672-7348

TRUST YOUR SOURCE AGAIN! NO SUBSTITUTIONS!

PRODUCT CERTIFICATION

SALES ORDER - LINE / RLS

179587-1 / 0-

SHIP TO:

Factory Steel & Metal Supply C
14020 Oakland Avenue
Detroit, MI 48203
USA

WORK ORDER 02007

HEAT NUMBER 25537

MELT SOURCE Trinken Steel - Melt/Mfg. USA

PCS/HEAT 0

CUSTOMER P.O. 3999	CUSTOMER PART SQ-N12036	QUANTITY	LADING NO	CERT.ID / REV /	CERT DATE
PART DESCRIPTION SHSQ0500035J200					
Additional Specification(s)					
<u>TEST</u> Brinell	<u>UNITS</u> Brinell	<u>TESTS</u> 6	<u>HIGH</u> 251	<u>LOW</u> 197	<u>AVERAGE</u> 225
					<u>STD-DEV</u> 27
<p>This test report data is for the heat Chemistry stated above.</p> <p>The material in this test report is:</p> <ol style="list-style-type: none"> 1) Drawn in the USA 2) Free from Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Mercury contamination. 3) NAFTA compliant. <p>End of Certification</p>					

DAS
9-89

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

Janine Demoss
Quality Assurance

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> </div> <div> Eng. (Non-AW) <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/> </div> </div>			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor		
			QC / QA Coordinator		
Root Cause <div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		FAULT CATEGORY <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Bending <input type="checkbox"/> Crushing <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Mislabeled </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Incomplete/Unclear Instructions <input type="checkbox"/> Drill Holes <input type="checkbox"/> Fit/Function </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain Direction <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Off-set/Set-up </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Outside Tolerance <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Misread </div> </div>			
Other/Details:					